

**Amendments to the Specification:**

Please replace the paragraph beginning on page 1, line 5, with the following amended paragraph:

The present application is a divisional of USSN 09/833,466, filed April 11, 2001, and claims the benefit of ~~claims priority to~~ USSN 60/197,793, filed April 14, 2000, both of which are herein incorporated by reference in their its entirety.

Please replace the paragraph beginning on page 6, line 31, with the following amended paragraph:

Figures 1A, 1B and 1C provide[[s]] an amino acid alignment of Kv10.1 with Kv2.1 and Kv2.2. Identical amino acids are shaded, and amino acid position is given at the left margin. Gaps in the alignment are indicated by dashes.

Please replace the paragraph beginning on page 62, line 3, with the following amended paragraph:

An alignment of the amino acid sequence of Kv10.1 to the amino acid sequences of human Kv2.1 and Kv2.2, the two known genes most homologous to Kv10.1. Kv10.1 is less than 40% identical to Kv2.1 and Kv2.2. In contrast, Kv2.1 and Kv2.2 share over 60% amino acid identity. Therefore Kv10.1 does not represent a novel member of the Kv2 subfamily of Kv potassium channel genes, but is the first representative of a novel family of Kv potassium channels. Since this is the 10th Kv subfamily identified, the gene is named Kv10.1, and the subfamily is named Kv10. The alignment in Figures 1A, 1B and 1C also show[[s]] the best region that can be used to define the Kv10.1 species. Substantial conservation with the Kv2.1 channels begins at amino acid 102, the beginning of the tetramerization domain (T1) of Kv potassium channels. The conservation ends near amino acid 514, in the C-terminal cytoplasmic domain of these Kv channels. Within this region, Kv10.1 shares approximately 40% amino acid identity to Kv2.1 and Kv2.2. Members of the same Kv subfamily typically share higher homology within this region. For instance, Kv2.1 and Kv2.2 are more than 90% identical

Appl. No. Not yet assigned  
Amdt. dated March 31, 2004  
Preliminary Amendment

PATENT

over the same region. A protein sharing more than of 60% amino acid identity to Kv10.1 in this region is a member of the Kv10 subfamily of potassium channels.